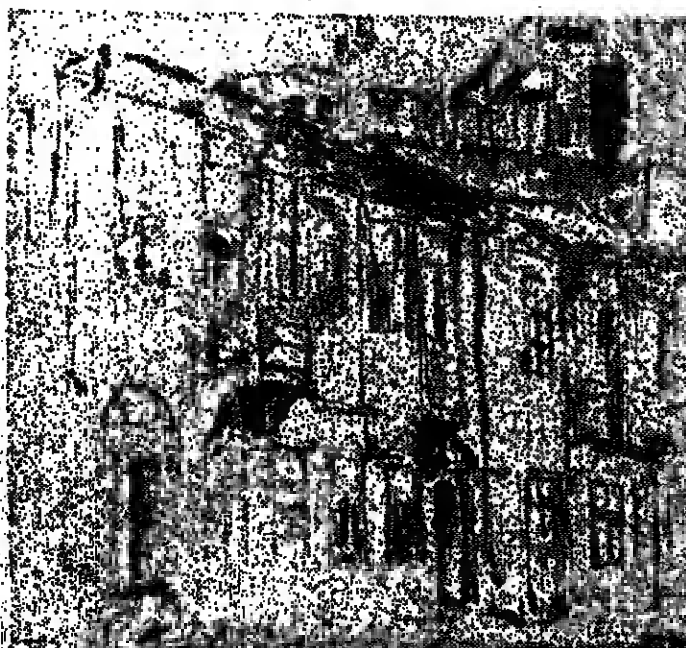


Marin Buceanu (1881-1971) belongs, not only chronologically, but to the interwar generation, and to those who asserted themselves in the following period. In postwar years, his exhibiting activity was fruitful and the social accents, obvious until then in his painting, became more consistent. Man, who seldom appeared, in land- or cityscapes, more as a pictorial motif and as an expression of deeply felt loneliness, became the dynamic centre of the image. The immobility of the figures and of the other elements of the composition, to which less bright chromatic tones corresponded, were left aside in favour of the vivid dynamism of scenes evoking the country's big construction sites.

The painter was, throughout his evolution, rather equilibrated, leading toward objectivity and construction. The impressionistic sensorial subjectivity, under whose sign he made his debut, or the ethical subjectivity of expressionism — from which he adopted on one hand, a certain freshness in the elaborate rendering of sensations at the level of affectivity, and on the other hand, the constructive rigour and material consistency of the motif — influenced him without diverting him from the natural ways of his character. The sadness and melancholy of the first period and the optimism of the second never reached extreme forms. In a period when avant-garde movements disputed their priority, Marin Buceanu was not seduced by the more or less lasting glory, of either of them; he had a slow evolution on his own path, under the signs of equilibrium and harmony, of a permanent aspiration towards the classical rigour of pictorial expression.

O. BARBU ■

Our photos feature reproductions of some of the painter's works: Self-Portrait (top, left); Bucharest in Winter (centre, left); Child with Toy Horse (bottom, left); Hydrangea (top, centre); Street in Bucharest (top, right); Magda (centre, right); Black Bottle (bottom right); Constanța (below).



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# ROMANIAN NEWS



## NICOLAE CEAUȘESCU AND ELENA CEAUȘESCU PAID A WORKING VISIT TO CONSTANȚA COUNTY

ANALYSIS OF THE STAGE REACHED IN  
THE IMPLEMENTATION OF THE PLAN PROVISIONS AND  
THE NATIONAL DEVELOPMENT PROGRAMMES • THE LAUNCH  
OF THE BIGGEST SHIP BUILT IN ROMANIA

On Tuesday, July 12, RCP General Secretary Nicolae Ceaușescu, President of Romania, and Elena Ceaușescu, paid a working visit to large economic units in Constanța municipality.

Just like all the areas of the country, in the years of socialist construction and particularly in the period inaugurated by the Ninth RCP Congress (1965), Constanța county has undergone renewing changes in all domains of economic and social life. The country's industry, represented by leading mills of the national economy, is currently characterized by high dynamics and efficiency. An important place is held by the sea transport and the shipbuilding industry, sectors which have grown at unprecedented rates over the interval. Romania's merchant fleet has grown 27 times, switching at the same time from the construction of small-tonnage vessels to huge 165,000 dwt ore carriers.

The working dialogue conducted by the President of the Republic with workers and specialists in the area of port activities, shipbuilding and sea transport, occasioned a look into the implementation of the provisions in the plan for the current year and the outline five-year interval, in the plans for the development of shipbuilding and onshore infrastructure of ports and of the Romanian sea transport in keeping with the resolutions of the Thirteenth Congress and the National Conference of the Party.

The visit started in the area of Constanța-Sud port, built to meet the current and future needs of the national economy, of Romania's developing commercial exchanges.

The analysis made on the occasion showed that the port of Constanța, Europe's first sea port linked to the Danube and one of the largest in Europe, stands today as a telling image of the dynamic Romanian national economy. It features in and out most of the Romanian import-export traffic, Constanța having direct links with over 1,200 ports in 150 countries in all the continents. The new port is soon to become one of the largest in the world, its plans receiving ships of most varied capacities and purposes. The Party General Secretary was informed on the progress at the port-construction operations, most of them currently in the final stage. The fact was pointed out that the dam-projected part of the new port covers an area three times larger than that of the old port of Constanța. Special attention was paid to the operations at the ferryboat terminal.

The port of Constanța-Sud stands where the waters of the Danube-Black Sea Canal reach the sea. In the same area construction operations have ended on the first units of the free port which, already at this stage, offers important goods-handling facilities. At the same time a modern berth has been commissioned for 165,000 dwt ore carriers, whose load may be operationally transferred to barges so that it may reach its destination as soon as possible, via the Danube-Black Sea Canal. An analysis was made of aspects related to the stage currently attained in the development of the port and to enhancing labour efficiency in port of handling goods by resorting to modern methods to a greater extent.

Next, President Nicolae Ceaușescu and Elena Ceaușescu visited Mangalia, the first ferryboat built in Romania, apt to take in 108 railway cars or the equivalent of 88 road trains, 16-metre long each, on just one voyage.

Next to be visited was the shipbuilding enterprise, one of Romania's oldest industrial units.

President Nicolae Ceaușescu was told how the collectively worked to fulfil its technological and production modernization tasks under the national shipbuilding programme for these five years. One 105,000 dwt ore carrier is ready for launching, as a second one is being built. Work is in progress to assimilate a 100,000 dwt ore carrier, build three more tankers of 55,000 dwt and have the se-

(cont. on p. 3)



## THE FLAGSHIP OF THE ROMANIAN FLEET (PAGE 4)

## ROMANIA IN THE WORLD (PAGE 2)

## DEVELOPMENT PROGRAMMES AND THE MODERN STRUCTURES OF THE ROMANIAN INDUSTRY INDUSTRIAL PARKS (PAGES 8-9-10)







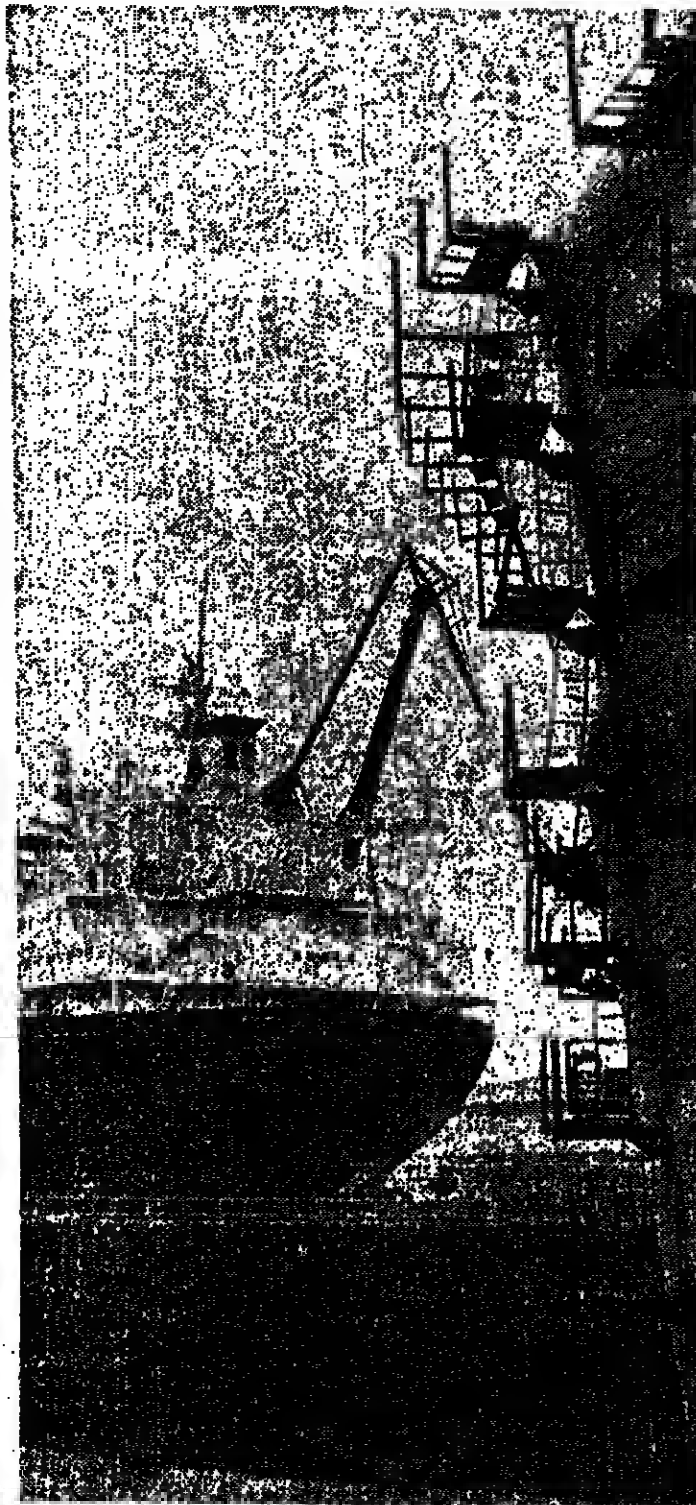
## ROMANIAN NEWS • ROMANIAN NEWS • ROMANIAN NEWS

**this  
week's  
reportage**

There followed other vessels of the same series, and very soon afterwards the first ship was on building the new, 50,000-ton ore carrier, a natural step towards new performance.

Other shipbuilding industries have assimilated an increasingly large number of appliances, shipborne and shore-based, and the modern type of motor of great power — up to 15,000 hp — which are assembled on ground and bolted by means of strong 400-ton cranes operating by coaxes in order to be "hoisted" in the ship.

The recent history of Comancha shipyard has registered



The shipbuilders of the country's biggest shipyard - that of Constanta - have substantially contributed to the growth of the Romanian sea-going mercantile fleet. The photo above shows new big-tonnage ships waiting to leave on their maiden voyage on seas and oceans.

The growth of the seagoing Romonian fleet is illustrated by the fact that while in 1968 Romania's fleet consisted of 51 ships with a displacement of 484,000 dwt, in 1988 the number of ships of various capacities and purposes reached 259, with a displacement of 4,757,000 dwt; the ships carrying Romania's pavilion now moor in most ports of the world.

A handful of experts enthusiastic for their profession have enabled the shipyard to comply with every requirement and expedite its production processes so that the ship types of sea-going ships without any special realignment. Currently, the first two ferryboats are being built, the dry docks are being built, and the outfitting in which will serve a new maritime line between Europe and America between the ports of Constantinople and Alexandria. The first ship of the line, the *Mansella*, was launched last year, while the second one, *Eldor*, is in advanced stage.

[illegible]

The first robbery in the Arabian shipbuilding industry has been perpetrated in the Gulf, being aimed at carrying off a such difficult-to-operate oil-cleaning, the submarine oil ships, diving the experts.

Currently under attack is the expansion of lower technology to the steel cutting and lifting sections.

The latest tradition of modern Communist shipbuilding in Communist are learning ready to start on the voyage, let me tell you.

C. 1984.11.14

The leading staff and students of the Oil and Gas Institute in Piquette's hydraulic investigations lab, a filter purifying sea water for ore in a tank, with a view to maintaining layer pressure. The product, obtained from the Romanian oil-seeds drilling rigs in the Black Sea, replaces, with very good results, the filters replaced until now.

Alongside the wool spinning mills of Bucharest, Pălasea-Constanța, Timișoara and Sighișoara, the new unit will contribute to the growth and diversification of production in the field. The spinning mill was commissioned two years ago; in 1980 the well-dandied its productive capacity following the setting into operation of a new section — the rayon pulp one.

Photo: The unit is currently working at its planned capacity.



Humanism students won prizes also at the 20th edition of the International Chemistry Olympiad. Organized in Finland, the competition gathered 151 participants from 28 countries. At the end of the tests informed us that "The 1st edition was considerably more difficult than the previous ones. In this case the results of our pupils appear all the more important. We hope that the future will confirm their high standard of training."

## MODERN MILLS

The Romanian Iron and Steel Industry has obtained the commission to supply the first modern mills in the country.

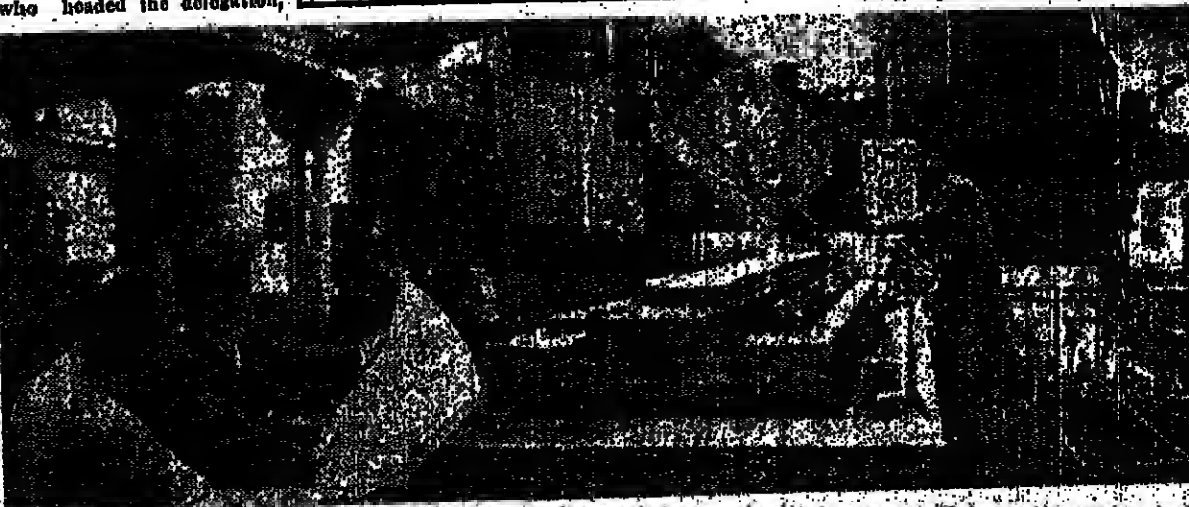
The first mill is being built in the town of Sabină, and the second in the town of Bătrîn. The third is being built in the town of Bătrîn. The fourth is being built in the town of Bătrîn. The fifth is being built in the town of Bătrîn. The sixth is being built in the town of Bătrîn. The seventh is being built in the town of Bătrîn. The eighth is being built in the town of Bătrîn. The ninth is being built in the town of Bătrîn. The tenth is being built in the town of Bătrîn. The eleventh is being built in the town of Bătrîn. The twelfth is being built in the town of Bătrîn. The thirteenth is being built in the town of Bătrîn. The fourteenth is being built in the town of Bătrîn. The fifteenth is being built in the town of Bătrîn. The sixteenth is being built in the town of Bătrîn. The seventeenth is being built in the town of Bătrîn. The eighteenth is being built in the town of Bătrîn. The nineteenth is being built in the town of Bătrîn. 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University professor Sorin Rogea D.Eng. from the Bucharest Polytechnic Institute, who headed the delegation,

[illegible]

Photo: View from the mechanical processing  
of the Mining Equipment Enterprise  
Gogolev (Gorj county).

The development of Romenicon Chemical Industries and petrochemistry helped create and modernize a strong subbranch of equipment, installations and machine tools for all sectors of chemistry: organic and inorganic chemistry, synthetic fibres and yarns, drugs and pharmaceutical substances, synthetic rubber and plastics, as well as for petrochemical industry and oil processing. Standing out among special plants is the oil equipment enterprise Uzinolux-Vilnos, one of the



Romana's current output of fertilizers — over three million tons (100 per cent of active substances) — which exceeds that of 1968 11 times — is realized through specialized plants such as those of Orskovo, Turgibure, Krasnoyarsk, Minsk, Naumovsk, Arad, Nakhichevan, Varna, Chisinau, Baku, Turgu Murgui, etc. Chemical fertilizers are also found in a varied range, as the same as microorganic fertilizers, carbidamide, as well as liquid chemical fertilizers (applied directly or introduced in irrigation waters).

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## UNIVERSITY AMPHITHEATRES IN THE FIELDS

The "Nicolae Bălcescu" Agronomic Institute in Bucharest, the oldest institution of higher agricultural education in Romania, this year celebrates 136 years since its founding. The name of the prestigious establishment and those of specialized higher education institutes in Cluj-Napoca, Timișoara and Iași are related to the shaping and affirmation, over the years, of a whole pleiad of scientists and specialists of national and international renown.

At the same time, at the Bucharest institute, as well as at the other above mentioned institutes, tens and tens of thousand highly qualified people have been trained for all sectors of the Romanian agriculture.

In this respect, the teaching staff have made an important contribution to the introduction and generalization of the latest scientific discoveries in plant growing and animal breeding. Of this have benefited both the future specialists and the state and cooperative units in the area, their application leading to the more rational use of the land, the zoning of cereal and technical crops, the melioration of nonproductive grounds, the increase of cereal and animal productions, etc.

At the "Nicolae Bălcescu" Agronomic Institute in Bucharest, at the other similar institutions, and as a matter of fact in the Romanian education system of all levels, theoretical and practical instruction are closely linked, by virtue of the principle of integrating it with research and production. In fact, theoretical instruction, scientific research and productive practice represent also a continuous process of mutual training, with wide scope, of the future agronomists, horticulturists, veterinarians, zootechnicians and in the land improvement field," said associate professor, engineer Alexandru Ionescu, deputy dean of the Faculty of Veterinary Medicine and Zootechnology, member of the Senate of the Bucharest Agronomic Institute.

"Our institute's scientific research and production base, concentrated mainly at the experimental teaching station at Belciugatele located at km 25

on Bucharest-Cluj-Napoca highway) holds a distinctive and important place in the scientific practical training for work and life. There, of Belciugatele — an education, research and production unit — there is a combination between the proper education process and hands-on training. In other words, the activity in the labs of the institute moved to the station's production farms. The students, supervised by the teaching staff, led by the institute's rector and professors, deans and deputy deans of the faculties, department heads, all the teachers of the two faculties of our institute — with five specializations in agronomy, horticulture, land improvement, veterinary medicine and zootechnology — learn by working and work by learning how to obtain high cereal and technical crops, meat, milk, wool, etc. The agronomists produce the products which represent the determin-

ing factor in the education and training process of the future specialists, much needed by agriculture and zootechnology, the other sectors of this basic branch of the Romanian economy."

The experimental teaching station at Belciugatele, set up 13 years ago, carries on its activity on the basis of annual production plans and programmes and is structured similarly to state agricultural units. It is organized in special production and research farms where the future engineers and other highly educated specialists are trained for agriculture, horticulture, land melioration, veterinary medicine and zootechnology. By the crops it will harvest this year (higher outputs are expected in all sectors, the largest in the station's existence), the Belciugatele station will meet the demands of the new revolution seen by Romania's agriculture.



The photos: General view of the experimental teaching station of Belciugatele and aspects of the activities carried on here: checking the evolution of the soy-bean crop fruit picking of the Bălcescu farm



## EXCELLENT FACILITIES

The experimental teaching station of the Nicolae Bălcescu Agronomic Institute in Bucharest boasts extensive facilities which rank it among the country's leading units in the field, as well as among the most modern ones worldwide, engineer Ștefan Neagu, the station's technical director, pointed out. The station spreads on a surface of over 25 km<sup>2</sup> and includes three distinct zones: Belciugatele (the most important one), Moara Domnească (which specializes in researching technologies on brown-reddish soil) and Bălcescu (specializing in horticulture).

All in all, the station has, among other things, 1,000 ha of arable land cultivated with wheat, barley, oats, maize, soy-bean, sun-flower, flax, pea, bean, fodder, etc.; a strong animal farm (comprising over 800 head of cattle, 3,000 pigs, 2,500 sheep, 50,000 laying hens and poultry, 100 horses, as well as small and fur animals, etc.), a gardening farm (fruit trees,

vineyards, nurseries, a dendrology section, flowers, etc.). Moreover, the station has a modern water treatment plant, feeding an experimental field on which future plants are grown, so industrial sector processing seeds (annually pulling out over 12,000 tons of seeds of cereals and technical plants), the country's second largest unit after the Farm Research Institute of Fundulea (not too far from the station of Belciugatele), a mechanical department housing almost all modern systems of machine and implements necessary for an intensive type of agriculture, an important sector of agricultural mechanization. In addition, there are excellent conditions of life and recreation for students, after classes of hands-on training. At the same time, the station implements its own special programmes for the development of plant culture (there are two ponds covering more than 100 ha), horticulture, apiculture, etc.



## EVERLASTING YOUTH

"Getting young is a utopia because nowhere in nature is there any reversibility in the regeneration of albuminoids or in the evolution of living things," wrote neurologist Gheorghe Marinescu (1857-1935) in his work *Old Age and Its Prevention* at the turn of the century. He was among the first in the world to elaborate his own gerontological theory, a scientific pioneer work. But old age can be treated like any disease, affirmed the illustrious physician, who can be considered the founder of the Romanian school of gerontology-geriatrics. A school acknowledged at world level for its original contribution to prolonging old age.

Constantin I. Parhon (1871-1969) an outstanding master of endocrinology, the author, in 1909, of the first complete endocrinology treatise in the world, opened new paths in this domain.

His researches on the mechanism and treatment of old age, on the changes of superior nervous and endocrine activity that take place with the age, linked to the corresponding biochemical processes, have become today reference points for any scientific discussion on the matter. C. I. Parhon elaborated a general conception on the time factor in the evolution of biological phenomena and substantiated a doctrine on the endocrinology of various periods of life. He laid the bases of the clinical and experimental study of aging. He is the author of studies on the morphology and physiopathology of old age.

Concerning therapy, C. I. Parhon proposed and experimented treatments with glandular extracts and hormones which proved efficient. He created oophorectomy drugs, being one of the pioneers of ovarian endocrinology. At the same time he called the attention to the importance of social factors in the attempt to prolong life and to actively stimulate for the creation of material conditions favourable to the entire society.

C. I. Parhon attracted many Romanian physicians toward gerontology. After 1932, when the National Institute of Gerontology and Geriatrics was founded in Bucharest, the latter became an authentic capital of world geriatrics.

Thus personally who dominated, in the last decades, this solid medical school was Ana Aslan (1897-1983) herself an example of lucid long life. Her researches included all gerontology domains with investigations extended on the mechanisms of morphological, functional and biological aging processes, as well as on its demographic and epidemiological aspects.

For the prophylaxis of aging, Ana Aslan approached a new treatment method, well known today throughout the world. This is mainly based on the effect of neovital (H-3 product) in preventing and improving age-related involution disorders (arteriosclerosis, scleroderma, vitiligo, etc.). She applied this method successfully in the clinic, in the form of original products patented as *Neovital*, *Gerovital* H<sub>3</sub> and *Aslanvit* jointly with E. Pătrășcanu.

In the last half of the century, the average life expectancy has grown by 30 per cent, and the number of the elderly has increased considerably. Naturally, researchers all over the world are now more earnestly studying the problems of aging. This global concern sheds light on the merits of the Romanian school of gerontology, its world homologated successes in search of the long dream of everlasting youth.

ST. SARDU ■

SCIENCE  
and LIFE

## STUDENT RESEARCH

The experimental didactic station of the Nicolae Bălcescu Agronomic Institute in Bucharest has an important role in advanced technologies and experience. The station is all aiming at farming plants grown in this country, all animal breeds, all technologies. "Moara Domnească farm, for instance," said Alexandru Ionescu, "has a special destination: that of researching crop technologies on brown-reddish soils, having ap-



pliability on one million ha of the country's farmland". Also here, just like in other state and cooperative farms in Cluj-Napoca and the neighboring counties, the students routine researches with a view to finalizing their diploma papers.

A sustained activity is going on at the experimental teaching station of Belciugatele devoted to the improvement of specialized education, its integration with research and production. The teaching staff, experts and students have undertaken to create plant strains and hybrids with superior biological characteristics, high-quality seeds and horticultural material, and to improve animal breeds.

Therefore, the station plays a major role in both training the future experts (about three fourths of the students' training time is spent in producing conditions) and in enhancing the country's plant and animal production. Proving this is also the title of "Years of the New Agrarian Revolution" awarded to the Belciugatele experimental teaching station.

T. NITESCU ■  
Photos: C. MUCAN ■



## LETHAL PERFUME

The happening has the merit of a detective story: the criminals have been identified but there are no proofs against them. The task of the detective is to follow the place and time of the next attack and catch the wrong doers red-handed.

A few years ago two species of locusts entirely unknown to this area made their appearance all of a sudden: *Lithocercus blattellae* and *Silvestris mallois*. They had settled in the southern part of the country, devastating orchards of apples, sweet cherry and sour cherry trees.

Those who did not know what was going on thought they were some pleasant, playful, smartly coloured butterflies. Ephemeral, adults lived as much as 5-7 days, posing no danger whatsoever. They laid apparently inoffensive eggs on fruit-tree leaves. But, right after eclosion, larvae entered the chrysalis of the leaf destroying it from within. Once inside the leaves larvae made any insecticide useless. Trees looked denuded of leaves in mid-summer, and not only did they lose the fruits of that year but they also aborted a part of next year's buds.

Therefore any chance at all to eliminate the danger should have had to be focused on adults.

The time when butterflies started to fly had to be spoiled with extreme minuteness. A day, maybe less. Before they could have laid their eggs.

At the request of fruit producers, the Institute of Chemistry in Cluj-Napoca worked out a chemical formula of the pheromone of the insects. Namely of that substance emitted exclusively by females as a sexual male attractor. We shall not dwell on the fitness of the operation of identifying and chemically synthesizing such a substance.

Once prepared it could be used in so-called pheromone traps. These traps are not meant to kill butterflies themselves. They represent only a forecast and warning system. Once the first exemplars appear inside a trap the whole area is on the alert, ready to start using the best insecticide recommended by warning bulletins.

The perfume which should stimulate the perpetuation of one species or another turns out a lethal weapon.

G. OSTROVEANU ■

SCIENCE  
and LIFE



## DEVELOPMENT PROGRAMMES AND THE MODERN STRUCTURES OF THE ROMANIAN INDUSTRY

**A WELL-GROUNDED OPTION • MAXIMUM EFFICIENCY — MINIMUM EXPENSES • RATIONAL UTILIZATION OF THE TERRAIN • AN ECOLOGICAL OUTLOOK ON INDUSTRY • CORRELATIONS WITH THE TOWN AND COUNTRY PLANNING PROGRAMME • AN OPTIMUM FRAMEWORK FOR EDUCATION AND RESEARCH**

Today, almost all large or small towns in Romania have, as a gravitation centre of their economic life, an industrial park, or at least an important industrial unit, forshodowing on industrial park in the inoke.

The industrial park creates the industrial profile of each locality, having the main role in its development and in the development of the area in which it is located.

Romanian economists define the industrial park as an ensemble of enterprises of the same industrial branch, of related or different branches where are achieved, through the location in the same area, the spatial integration of production, cooperation and the concentration of the units' forces, the judicious use of terrains, the common use of the utility and sociocultural establishment network, with a view to best turning to account resources.

But the definition cannot comprise all concrete situations, the whole richness of

## development- OPTIONS STRATEGIES

reality. In the vast landscape of Romanian industry, from one locality to another, there is a great variety of types of industrial parks. Several tens of criteria are used to differentiate them, among which: the production integration degree, the territorial integration, a series of natural and environmental, technico-economic, organizational and management, social and political factors.

## FROM DEFINITION TO REALITY

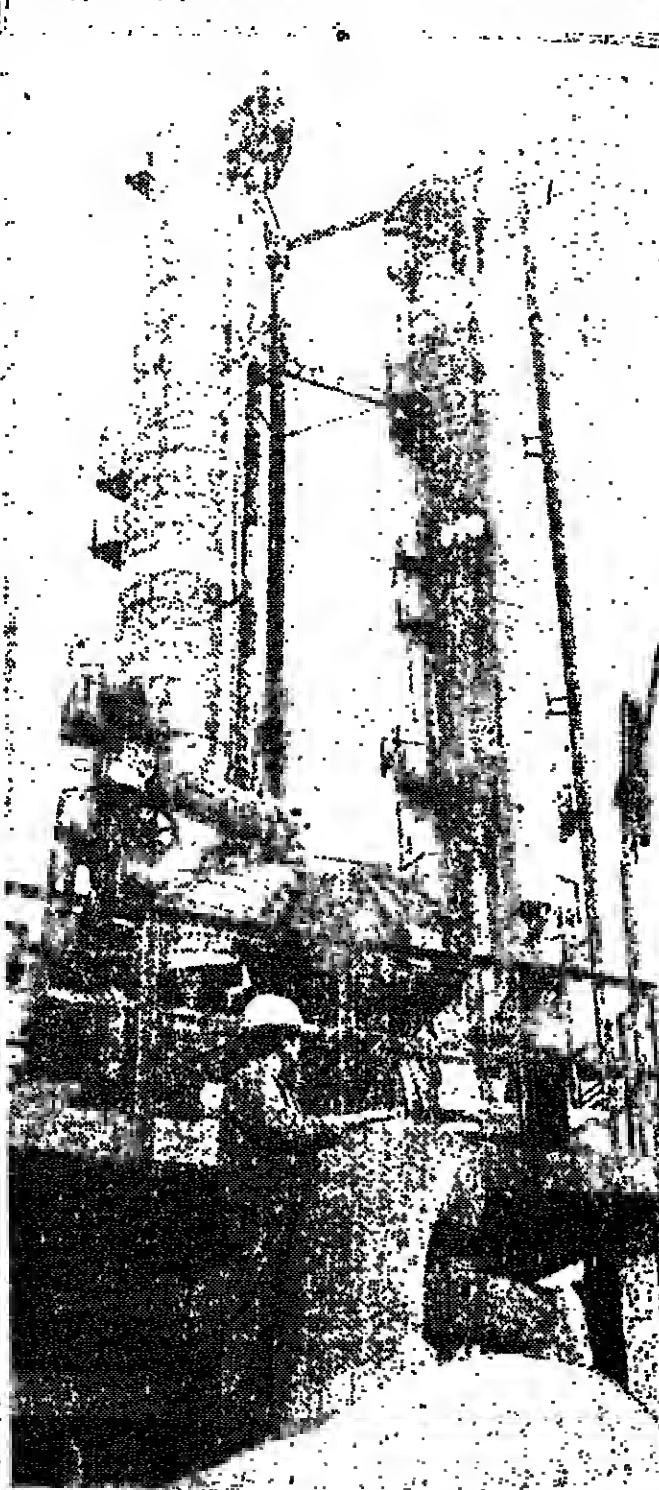
From the point of view of dimensions there are small-size parks gathering several enterprises where several thousand workers carry out their activity and big parks — where the number of personnel can reach several tens of thousands. According to the form of industrial activity there are strictly specialized parks, where all or almost all units belong to a single branch and process the same raw materials and mixed parks — grouping enterprises

from several branches. According to the number of enterprises making them up, there are parks including a single production unit — the plant, and parks including several autonomous units — up to several tens.

The industrial park is different from the industrial area which is an ensemble of economic units with a broader specific. Within an industrial area too, enterprises use, in common, a series of utilities and sociocultural establishments, but own-

ing to the diversity of industrial branches cooperation is limited. There are situations when an industrial area is divided into several various industrial parks. Municipalities have, in general, several industrial parks. (In Romania the number of industrial parks is bigger than in towns: 259 to 257). As there are towns — mining or oil centres — where industrial units, although important, do not make up industrial parks. Grouping enterprises is an in-

View from the Chemical Works of Rimnicu Vilcea which through the volume and quality of its products has become a standard unit of the Romanian chemical industry. In its relations, the rich soil deposits to be found in the area are turned into a wide range of chemical products such as caustic soda, hydrochloric acid, vinyl polychloride, etc. The works also includes a research centre of the Central Chemistry Institute. Below: Panoramic view of Ghencea industrial park, in the south-western part of Bucharest, specializing in the light industry. Grouped here are enterprises working in such fields as knitwear, upholstery fabrics, plastics, synthetic leather.

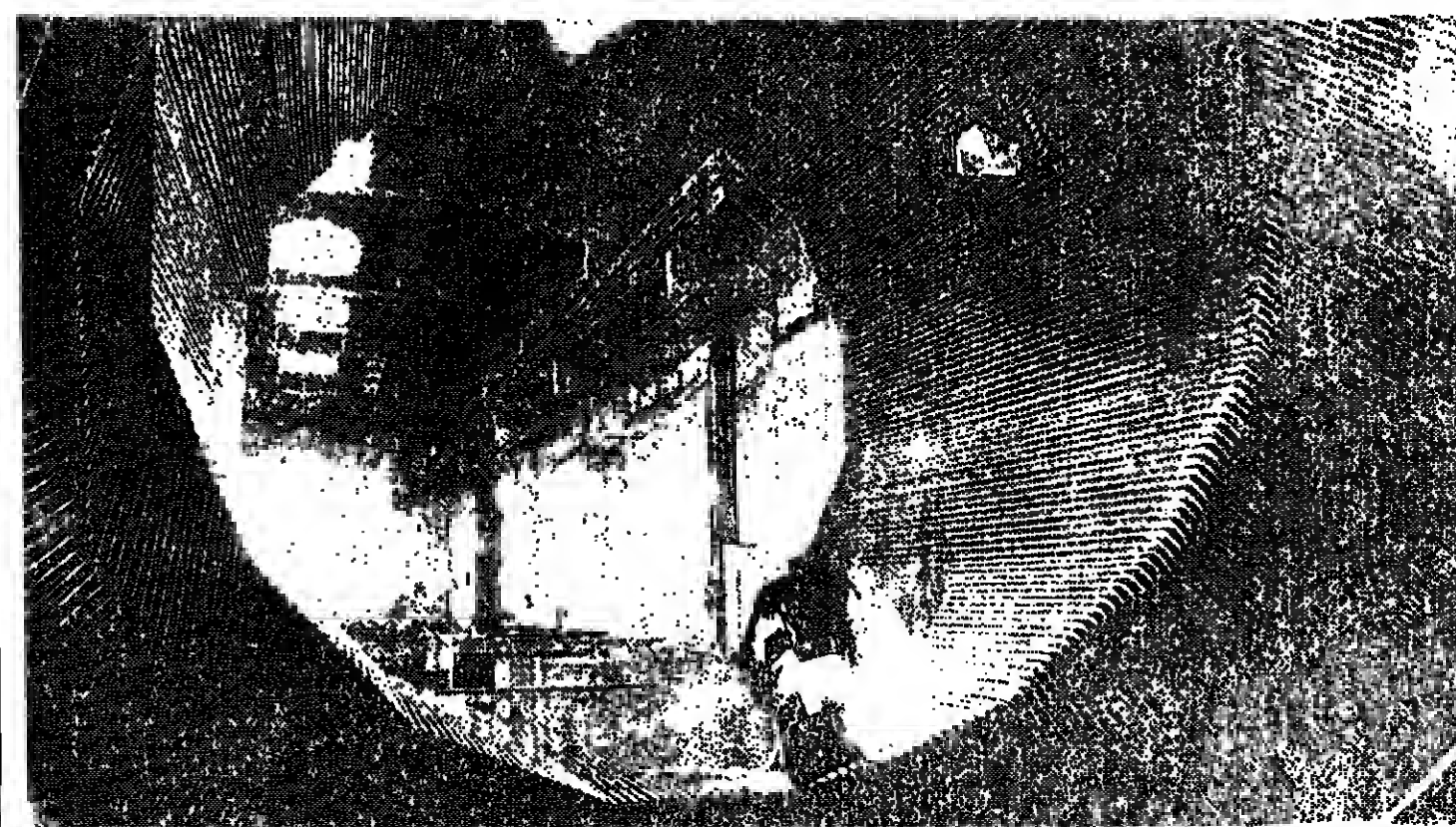


ustrial park. Is, first of all, a form of spatial integration, offering the framework for cooperation among units. In this operation are built and used in respect are built and used in common various utilities and auxiliary objectives: electric and thermal power plants, local maintenance and repair workshops, storerooms, garages, internal roads and highways, administrative buildings. When parks are homogeneous (including enterprises of the same branch or related branches) organizational integration and even a single management can be achieved.

But, regardless of its profile and dimensions, the industrial park represents an important efficiency factor related to the territorial emplacement of enterprises and the land and material wastes involved.

Appreciating these advantages, realistically evaluating its necessities and possibilities, Romanians opted for an industrialization, mainly by means of industrial parks. Thus were rapidly built, with considerable investment economies, plants, works, and factories making up Romania's modern industry of today.

The industrial park has become the fundamental element of the Romanian strategy of a rational, equilibrated repartition of production forces on the whole country territory, of harmonious development of all areas and localities.



## TERRITORIAL PLANNING

The 1968 administrative and territorial reorganization created the framework for the fulfilment of large-scale socioeconomic development programmes in all countries and localities, especially in the ones lagging behind. Numerous decrees and laws regarding town and country planning adopted meanwhile have improved this framework.

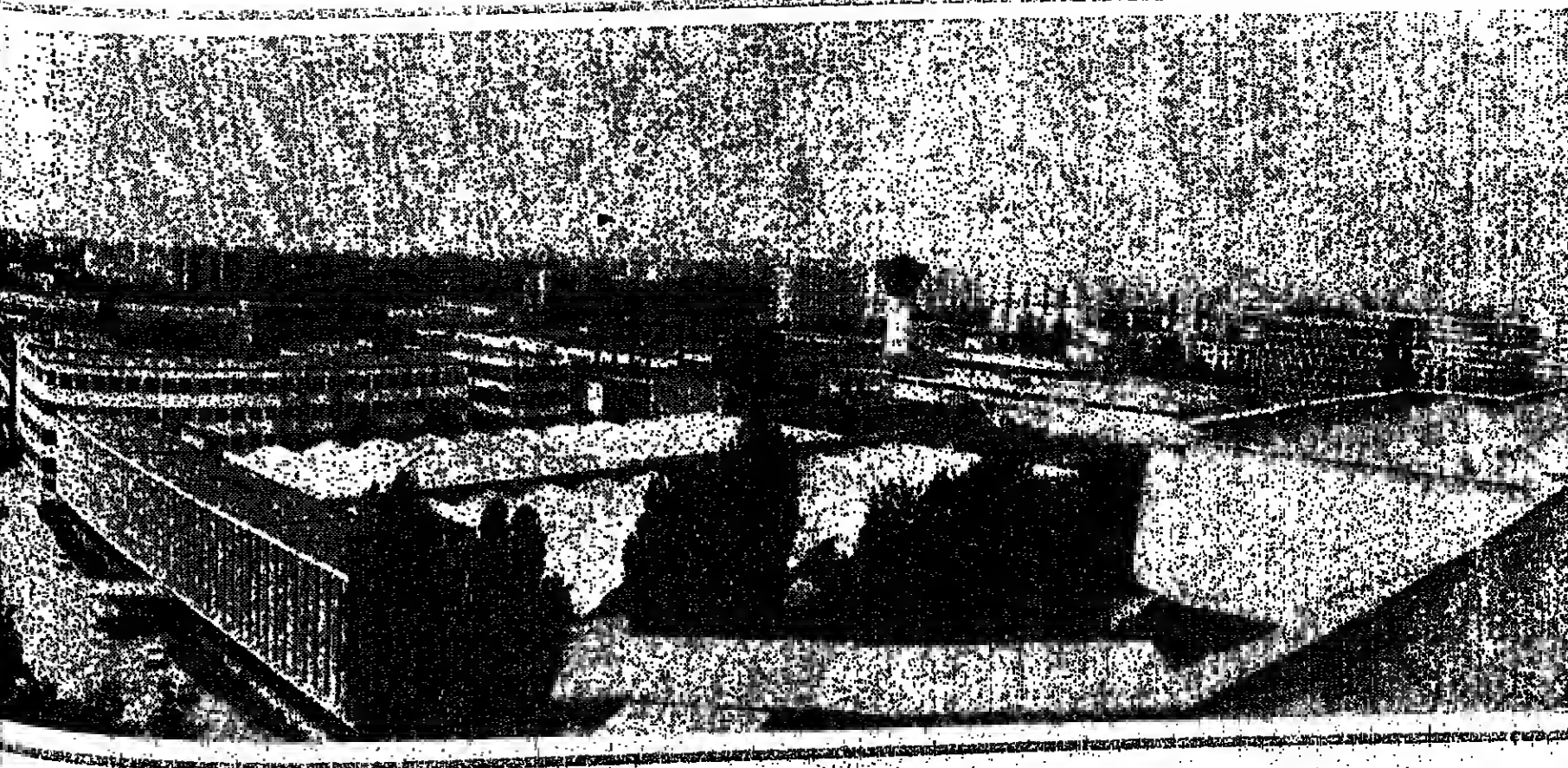
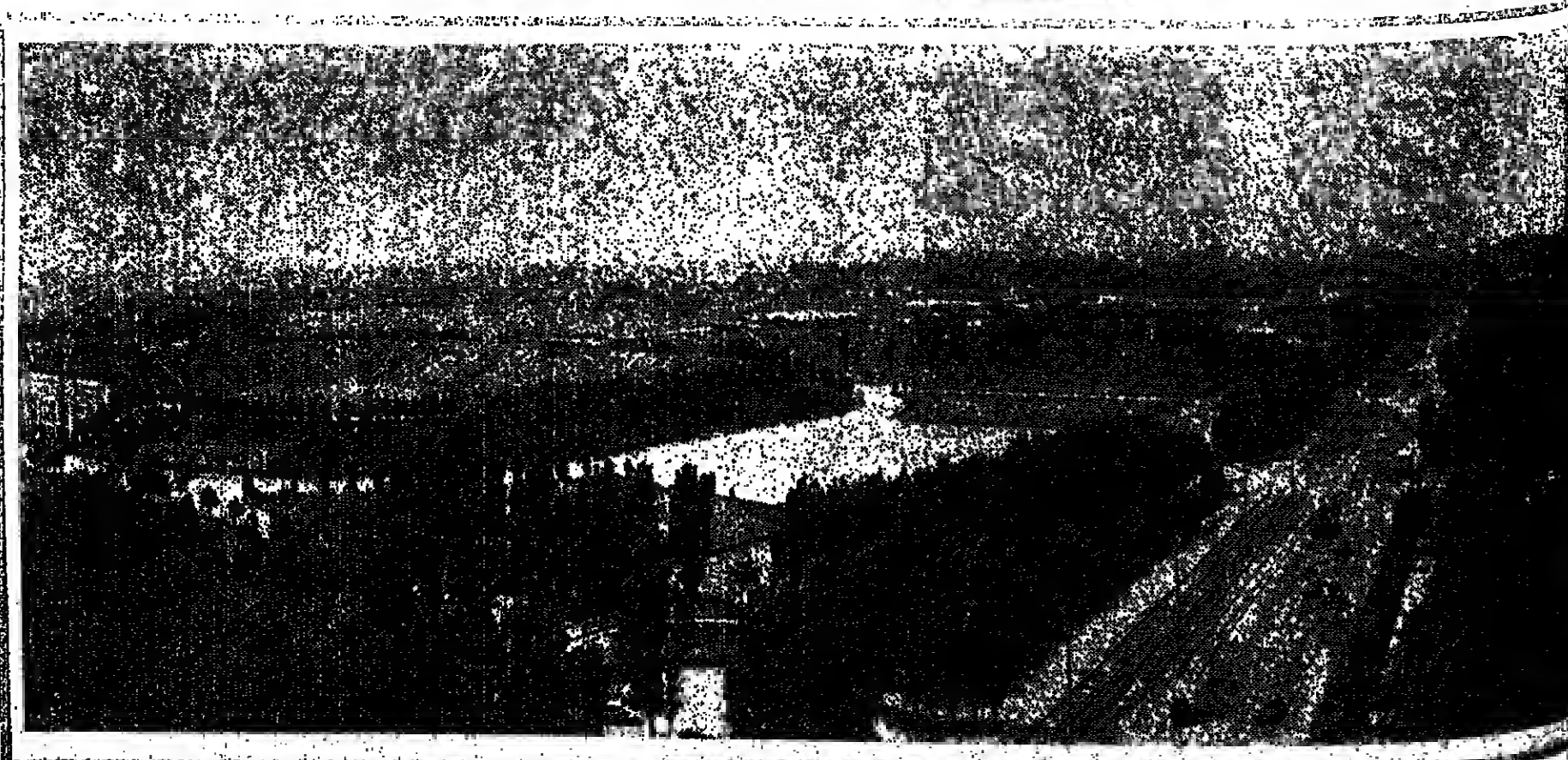
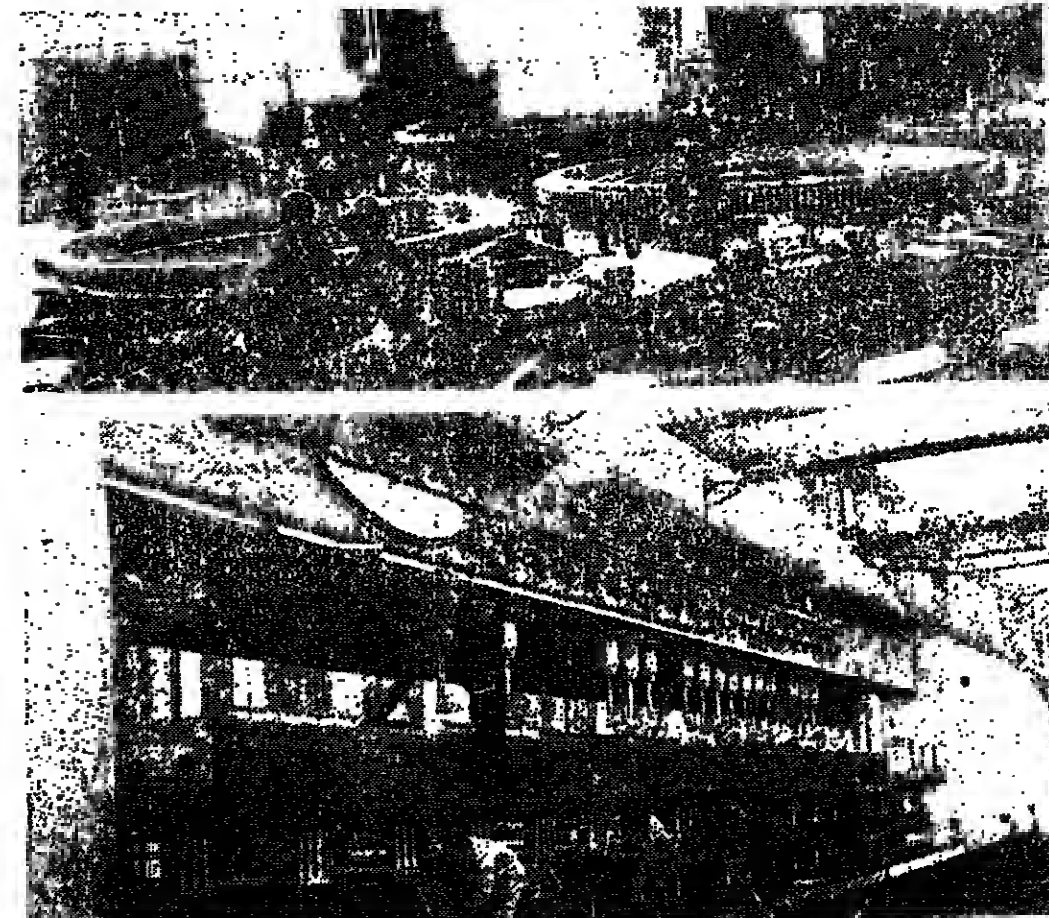
The main criteria for territorial planning also lay down the guidelines for local development: full capitalization of the resources in every area, harmonious blending of the industrial production with the farming and the other socioeconomic activities, deepening of the links and cooperation among the localities in the same region, protection of the land, water, air, green areas, of the environment

as a whole, limiting of the built areas in towns and villages (and their rational use according to clear-cut norms) and of the green part of the land, stock-grant for industrial and farming activities. And they also became the criteria according to which productive investments are directed and the industrial units are placed and concentrated in the territory, within industrial areas.

Thus, through the multitude of economic, technological, constructive, social and ecological factors to be taken into account, the designing and planning of an industrial park acquires the complexity of designing a new town.

(cont. on p. 10)

Left: The Mechanical Enterprise in the north-eastern industrial area of Timisoara turning out mining equipment; the Heavy-Duty Equipment Enterprise in the eastern industrial park of Craiova. Top: An industrial giant; the Vulcan plant in Bucharest, a producer of energy equipment.





## MAXIMUM EFFICIENCY

The main goal of an industrial park is to attain maximum economic efficiency as early as the construction stage.

The economic efficiency is measured in terms of the ratio between the effects obtained by processing raw and subsidiary materials, by capitalizing and recovering all forms of energy, by having all enterprises use jointly the equipment and amenities and by rationally using the land and the total amount of necessary expenditures. It increases in direct proportion with the ratio — which can be registered by increasing the number of effects while curtailing expenditures.

In conceiving an industrial park, a designer starts by analyzing all elements making up the raw and subsidiary materials used in the make process in order to combine technological flows and technologies, so that they may turn to best account all these components within that area.

The integral group of industrial areas in which enterprises are deployed along the logical line of production processes, capitalizing wholly and much better all the values of raw materials and energy, turning them into a widely varied range of products and services. All forms of energy are used in the production process, steam and hot water delivered to neighbouring agricultural units and residential areas and damages caused to environment by pollution diminished or eliminated.

The large number of investment objectives, of beneficiary units, of construction enterprises specialized in various groups of works, of designing units, the large areas of land on which buildings are to be raised, the large volume of materials and work for execution require a unitary management of construction-assembly works on the industrial park. According to the law, they depend on a single construction unit, that of the county on whose territory the section is carried out, which has the power of a general trust and operates under the guidance of the County People's Council or of the Ministry which holds the largest share of investments.

Solutions are adopted during the designing and erection stages which cut back on the bulk of construction-assembly works and save investments substantially: the reduction of the sizes of industrial buildings, a rational siting of buildings meant to become simple and flexible constructions which can be easily adapted to the evolution of technological processes. The main way of ensuring the efficiency of industrial constructions is to promote and try out elements, going as far as changing entire production halls. Thus buildings become lighter, manpower is reduced, material consumption is cut back and units are commissioned ahead of schedule.

The great majority of over 250 industrial parks in Romania have been erected out of typified units, reducing the cost of investments and selling up savings which allowed of the construction of several industrial units, thus stepping up the development of the national economy.

Integrating enterprises in industrial areas is also a way to save land and use it to the best account. In order to site an industrial area priority is given to soils inadequate for farm outputs. Constructive solutions are adopted which cover intensively small areas of land. Priority is given to technologies helping group and amalgamate production flows in monoblock belts and, wherever it is possible, to their vertical construction in elevated buildings, thus curtailing also insulation and transport networks. Certain auxiliary factories and units as well as social-administrative offices share the same building. Steam-generating stations and thermoelectric stations are built to the effect of supplying electricity, heat and warm water to both units of the industrial park and neighbouring residential areas. Stimulated are single sources of water supply and a single water treatment station for the whole area. The system of incineration including yard tracks and alleys is also developed.

It is also a way to be used most efficiently by all enterprises. Social and cultural establishments are also integrated in one building in order to meet the needs of the whole area. The designing, siting and construction of the industrial park and of the building site have

to integrate harmoniously and efficiently with the ecosystem the natural and geographic framework, the physical and climatic environment and with the socioeconomic system of the respective area and localities, taking into consideration the degree of urbanization, the manpower availabilities, the neighbouring agricultural system.

Industrial areas are first of all sited near sources of raw materials (coal, oil, gas, ore, wood, etc.) in order to cut easily transport to great distances, as well as near water sources with optimum discharge — the industries requiring large quantities of water which involve bulky transport (the iron and steel works of Galați and Râmnic, sited on the banks of the Danube). For the high-tech industries — electronics, computer technology, automated machine tools, etc. — designers choose mainly localities housing already acclaimed scientific and technical feats as well as professional experience: Bucharest, Cluj-Napoca, Timisoara and Iasi. Enterprises which require a large number of staff are built in localities rated low as regards their gainfully employed population. Industrial units employing women (textiles and ready-made clothes factories, textile units) are built in cities where the heavy and extensive industries are dominant.

## OPTIMUM RELATIONS

The dimensions of an industrial area are correlated to those of an residential zone. An industrial area is sited in urban perimeters which are densely populated, with an excess of manpower, in order to avoid commutation with all its consequences, meet its staff needs and cover an appropriate surface.

The siting is also related to the residential area. Noisy activities causing residue and requiring large areas are pushed to the outskirts so as to protect the city against pollution and ensure it a quiet life. In towns, near or inside a residential area only discreet and plain units can be erected which use raw materials and energy without letting out smoke or dust.

Industrial parks are sited in the extension of the residential territory but in a direction opposite to the development of the city proper (however, transport lines are prolonged), in parallel with residential districts (they do not hamper each other's development); implanted inside the residential area (the workplace is drawn nearer to dwellings, but it has to be a non-pollutant); in two peripheral zones (the towns whose topographic location does not allow of concentration in a single area); in a band, near the city, having the tendency of surrounding it (however, it can block its expansion).

The best idea is to achieve a spatial integration between the industrial areas and the residential districts by drawing nearer the workers' dwellings to their workplaces. Thus they do not have to cover long distances every day, wearing off their strength. Besides, the number of transport means can be reduced.

Depending on the position of the industrial area vis-à-vis the residential district at a distance, on the outskirts or inside the necessary amount of commercial facilities is also determined: restaurants, canteens, micro-canteens, caterers, ready-cooked food units, milk, bread, vegetables, fruits shops, cosmetics shops, drug-stores, newsstands, as well as service units: public transport, parking areas, post offices, laundries and chemical cleaning units, hairdressers, dispensaries, sports grounds, clubs, libraries, etc., belonging to the respective industrial area.



This network becomes large in case the industrial area is sited outside the city, because in the other two instances urban facilities and services are to be used.

The existence of an industrial area imposes the settlement of the question of ensuring and moulding labour force over a long haul and mostly with less efforts. As early as construction appears on the building site of the future industrial park, sources of qualification begin in the nearby locality. Educational establishments function permanently on each industrial area. Industrial high schools and vocational schools carry out their activity in the vicinity and under the sponsorship of enterprises. For practical training they use both their own workshops as well as technical equipment and specialists from plants and factories.

In university centres, buildings of technical facilities with laboratories and workshops have also been planned near industrial areas. Thus a better integration is achieved of education with production.

Industrial areas offer an ideal framework for the symbols of research and production. The results scored in institutes of agricultural research and technological engineering are not confined to the stage of tests and prototypes, they materialize rapidly into constructive solutions and production technologies. Research is present all through the process of learning out products, until the new, fabricated processes reach full maturity.

The construction of research units on industrial areas offer also the possibility of using jointly with enterprises pilot stations and laboratories, making up joint collective of research and design with their specialists.

MIRCEA ROȘCA



Top: The new residential district Drumul Tâmbor also shelters the Electrochimic enterprise manufacturing over 700 products meant for the electrical engineering and electronic industries. Centre: The Fine Mechanics Plant lying in the Ober market area of Bucharest. Bottom: The Iron-and-Steel Works of Reșița, the nucleus of a powerful industrial park specializing in mechanical engineering.

## METALLIC CORD

The updating of technologies and products, the continuous diversification of the manufacturing line is a permanent concern of the Wire and Wire Products Enterprise in Buzău. Lately, a number of products required by the national economy — including new types of steel cord, metallic cord (the Buzău enterprise is the only producer in this country), zinc wire, silicon-calcium tubes for steel mills, new rolled goods and flat strip products — have been turned out.



## ROCAR 112

One of the most recent products of the Autobuzul enterprise of Bucharest is "Rocar 112", a luxury bus boasting special comfort (air-conditioning, drinking water taps and toilet).

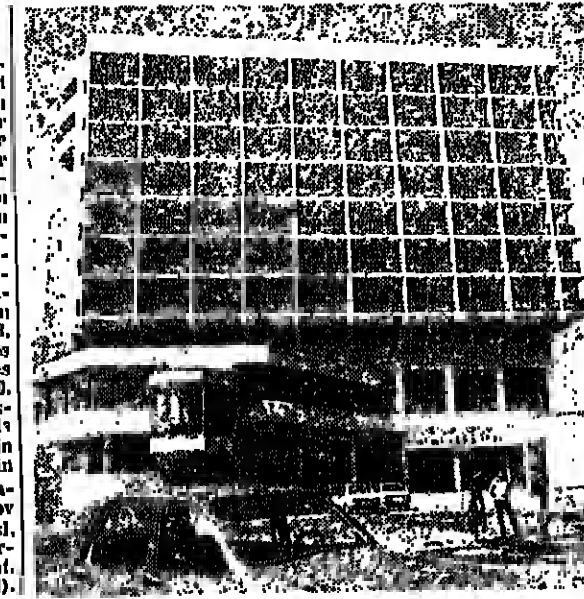
The Bucharest plant is the main Romanian manufacturer of urban and inter-urban mass-transport means. It turns out a wide range of buses, trolleybuses, utility vans and microbuses. Thanks to its own design, testing and homologation departments, the enterprise enriches its production list every year. For instance, buses are produced in five variants for urban and inter-urban transport (equipped with 135 up to 230 hp engines) with 10 up to 100 seats and a fuel economy of 1,200 km.

At the same time the unit manufactures currently two types of simple and articulated of trolleybuses equipped with 120 or 160 kW electric engines, as well as utility vans for agents' buses, rapidly ranging from one to three tons, and for passenger vehicles with short distances. They are provided with Diesel or gas engines (60 hp) with simple or double traction, being able to be used on any terrain.

Transport means built by Autobuzul are known and collected by scores of countries on all continents, some of them bearing long-standing traditions in the field, such as Italy, West Germany, Great Britain, Belgium and the USSR.

## A THOUSAND SPRINGS

In the last years, in Covasna county, the hotel and business network has known a visible diversification. The reason? There are many springs with curative properties, a fact determining the specialists, but also the tourists to call Covasna town the resort with a thousand springs. Historical documents mentioned the curative effects of mineral water and gas emanations in Covasna as early as 1583. Collecting gas in bottles for therapeutic purposes was done only after 1890. The oldest spring in Covasna resort won a prize for its special curative properties in 1892 at a contest held in Trier, Germany resort, located 60 km from Braşov and 330 km from Bucharest, annually attracts 60,000 tourists for treatment and rest.



## RECREATION AND SPORT

During these hot summer days, the Herăstrău Lake in Bucharest has been invaded by people of all ages.

On the same lake, the members of nautical clubs carry out their activity daily, preparing their future performances for the Olympic Games and other sports competitions. Wind surfing (training four photos) seems easy only at first sight, to a nonspecialist. To attain that skill the sportsman needs many hours of training in other disciplines too.

## HOUSING CONSTRUCTION

Housing builders in Tirgu Mures municipality (Mures county seat) have recently commenced another 450 apartments of the number planned for this year.

In the two decades having elapsed since the new territorial-administrative division, the housing dowry of Tirgu Mures municipality has been enriched with over 10,000 apartments, thus, new dwellings being provided to about 120,000 persons.

Recently, the builders there started working on a new housing complex which will include more than 8,000 flats, as well as other socio-cultural facilities of major interest. Currently in an advanced stage of completion is another ensemble comprising over 3,000 flats.

Today one of Romania's most attractive cities housing a rich housing and socio-cultural dowry, and a leading higher learning centre.

In their turn, the builders of Oradea municipality (Bihar county seat) have commissioned this year over 1,000 apartments, nearly 200 more than stipulated. Also finalized have been a number of socio-cultural projects, such as a recovery clinic in Foltz, a hotel, shops, solar energy collecting plants, etc.

Oradea town (Bihar county seat) which in 1968, following the country's new administrative-territorial division, was declared a municipality, has seen a powerful socioeconomic and urban development. Through the commissioning of 10 important economic enterprises, the volume of industrial production has grown more than 10 times. Built over this period for the municipality's population were numerous socio-cultural establishments and dwellings: 1,400 new apartments, creches, kindergartens, polytechnics, etc. This year, another 350 apartments have been completed.

## VARIANTS FOR MINING

Industrial firms have become an everyday crop at Timisoara Mechanical Enterprise, especially after the construction of sections provided with modern processing and manufacturing sections. One of these firms was the fabrication of a new, highly complex housing and transport installation — the 125-ton crane. It was completely designed by the Timisoara specialists. The crane facility was also completed with 80 and 10 ton cranes. The same specialists introduced in fabrication new, highly complex installations: 1,500 G-120 bucket wheel excavator — an equipment delivered to Herbol Mining Enterprise —, the combined machine for thermopower plant coal supply as well as a combined machine for ore extraction. In our photo aspect from the heavy machinery section of Timisoara Mechanical Enterprise.

## MACHINE TOOLS

Romania is known, at present, in the whole world as a country with a powerful modern industry building machine tools for metal cutting and processing, complex industrial equipment and installations. The main place held by Romania in the world hierarchy of machine tool producers is telling in this respect.

The technical dowry of this sub-branch is very representative. At present, specialized enterprises like the Machine Tool and Assemblies Enterprise in Bucharest, or ARO of Timisoara, "Industria" of Oradea, "Strugala" Arad, etc., are well known at a world level.

The product list of this sub-branch includes hundreds of machine tools in thousands of constructive variants, built at a competitive level, comparable to that of similar labour of various types, vertical and horizontal, flexible cells, big boring machines and with digital display, universal milling and boring machines, universal milling machines for

tools and series production, milling and boring machines with numerical control, column type drilling machines, vertical, interior threading machines, shaping machines, special machines, industrial equipment and transfer lines.



## THE CHILDREN'S INTERNATIONAL CAMP

As usual in summer, the Romanian coast of the Black Sea is the welcoming site of an international camp for children who spend their holidays on the sunny beach of Eforie-Sud, one of the 15 Romanian sea resorts.

The international camp gathers children from Europe, Asia, Africa and America. Occasional series of specific activities highlighting the role of the youngest generation in peace. At the same time the camp helps developing the spirit of collaboration and friendship among children's organizations present in the camp.

## WHEAT AND ELECTRIC PANELS

Until the '70s, Teleorman county was mainly known for its farming activity, centered on wheat, Romanian Flax. The principal crops were wheat and corn. Then, following the earmarking of the substantial funds for the country's industrial development, modern industrial units started to be built. In a relatively short period of time, the county's landscape was transformed. The enterprise of ball bearings, the factory of combined fodder, a cotton-spinning mill, the enterprise of electric control panels





# CARUL CU BERE

Mural paintings, stained-glass windows, staircases and balconies, inlaid floors, stone work, lamp posts and... tables. Clients gathered for a chat or simply to quench their thirst are faced with pot belly beer-mugs, yet only for a short while, because soon other mugs take their place...

The same interior, the same atmosphere as one hundred years ago when the piece of an old ale house owned by brothers Mircea was taken by a beautiful neo-Gothic building designed by architect Ziguirel Kodolitsky in 1888. An ambition of brothers Mircea to build an ale house such as it never existed. And they did it.

After three years of restoration things look much the same as they did in the beginning. Uncle Ghita — the first cellarman — has preserved his joviality and lantern, still smiling to his guests even though he is no more than a wooden statue. Preserved has also been the entrance sign: a cat and a cock. Translated, the symbol means that the ale house closes when the cats go to sleep and opens when the cock sings in the morning.

As early as the beginning of the restoration works, surprises came up one by one. The stratigraphic analysis of the colour band of the 48 arched masonry of the saloon of the ale house led to the conclusion that another drawing lay under two layers of colour.

Another surprise was the discovery of a niche in the wall separating the saloon from the kitchen, where brothers Mircea had built in a cabinet containing a television set, three padlocks fastened together (the three brothers, two golden coins and some others made of silver (euphonia), a postcard illustrating

the interior of the ale house which proved of great help to the restorers. Mihail Băntulescu (sculptor), Ioan Cadar (stained-glass windows), Stefan Călin and Surin Iliescu (carpenter) and Dumitru Rădulescu (carpenter and designer).

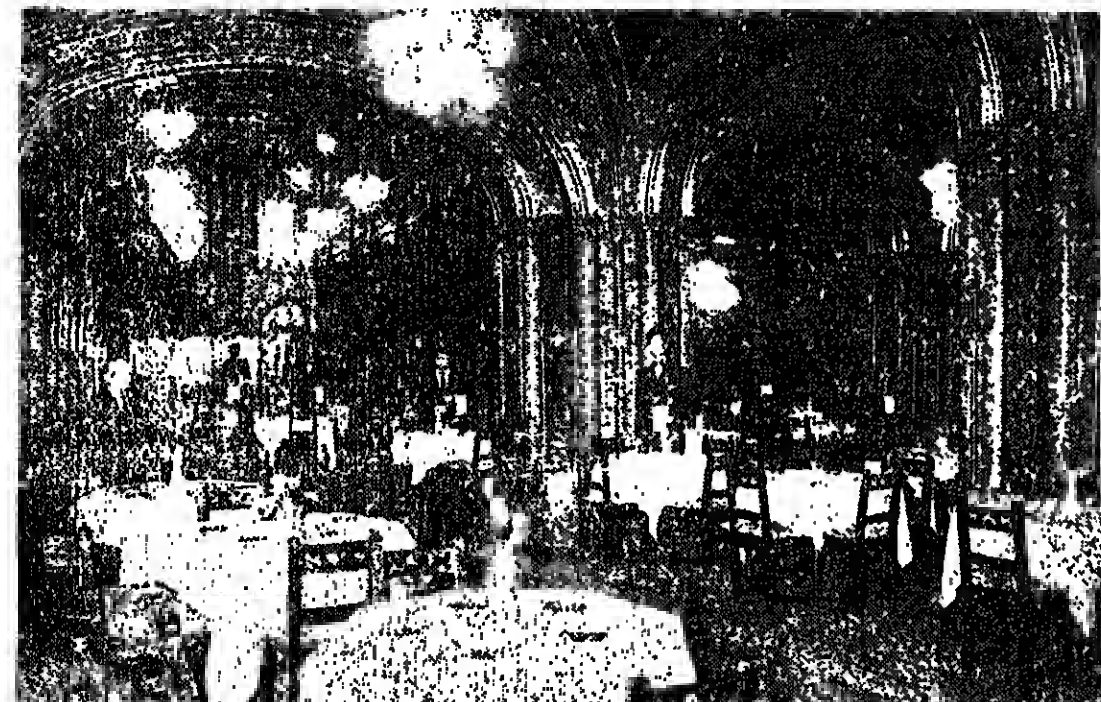
A great volume of work in which the minuteness of the craftsmen happily combined with the skill of the artist — as architect Ion Buras, general designer of the restoration, told me — was needed for the Carul cu Bere (The Beer Cart) restaurant to regain its original dazzling look. As an example of accuracy we shall mention only



that the grille stone laid on the floor preserved the same dimensions as before, though industry had been long using different proportions. Moreover, in order to remake the original ventilation system, designers searched everywhere for Nicolae Păunescu, one of the masters who built it in 1924.

The only difference is that now beer is no longer brought in by a cart, as it used to (hence the name of the ale house). As for the real, the same "perfect perfume", reconceived "drop by drop".

MIRCEA SONCUTEANU ■



## CACTUS COLLECTION

Thanks to the passion and collecting effort of late sculptor Vda Căza, Bala Mare municipality has today one of the biggest and most important cactus collections. It numbers some 4,000 plants from 2,000 species coming from all regions of the United States, Mexico, Central and Latin America, among which there are many rare forms of cactus some of them coloured others 20-30 years old, and a "Gimno Rubra", a small cactus transplanted at Hiroshima during the nuclear bombing, grafted with a healthy plant. Part of this beautiful collection is exhibited in the original decor in the lobby of the new "Mara" hotel.

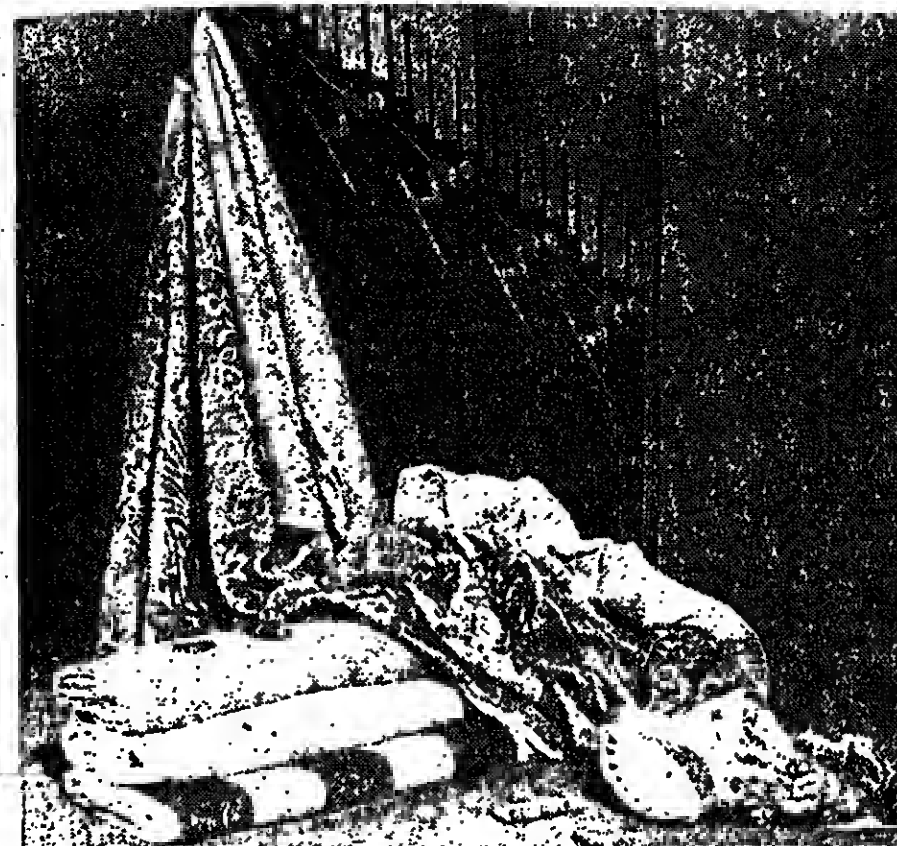
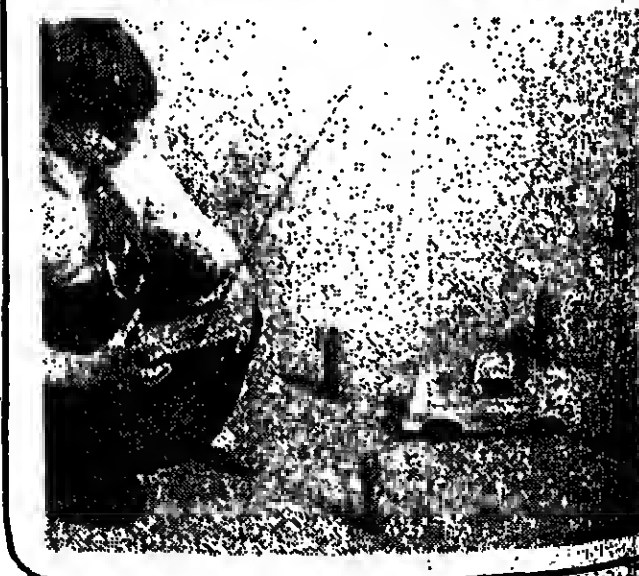
## PAINTED CHRONICLE

In the beautiful and monumental anthology La Chanson Traditionnelle et les notes by Roger Blavetard (Editions Max Fourny, Art et Industrie — Paris) we shall meet Ion Nădă Nădă with the work entitled Anghelele de la Valea, inspired after a folk song bearing the same name. His native place is Brăsturovici of the mirific Land of Hălăușu (Arad county), Ion Nădă died many years ago, but his fame is carried away by both his paintings belonging to various private collections and museums in the world and... Rodica, Marrying Nicușor, the son of Ion Nădă, Rodica Mihai, became Rodica Nădă. And once inside the house of her father-in-law who became "contaminated", in her turn she started to paint. Differently, but with the same skill. There were plenty of subjects. Because the life of villagers in a mountain settlement is very rich and picturesque, too. A real treasure of folk traditions and customs whose charm can be enjoyed equally instantly even by outsiders. For the locals, all this makes up the yearly calendar. At longer or shorter intervals, they occur regularly with the pomp of a ritual. "Realizing I could really paint myself" she added, "I decided that the subjects of my painting should remake the daily life of my native village — Brăsturovici". Under Rodica Nădă's master brush even the most prosaic events acquire the value of an offit.

MIRCEA IOLODEAN ■

## CAR MODELLING

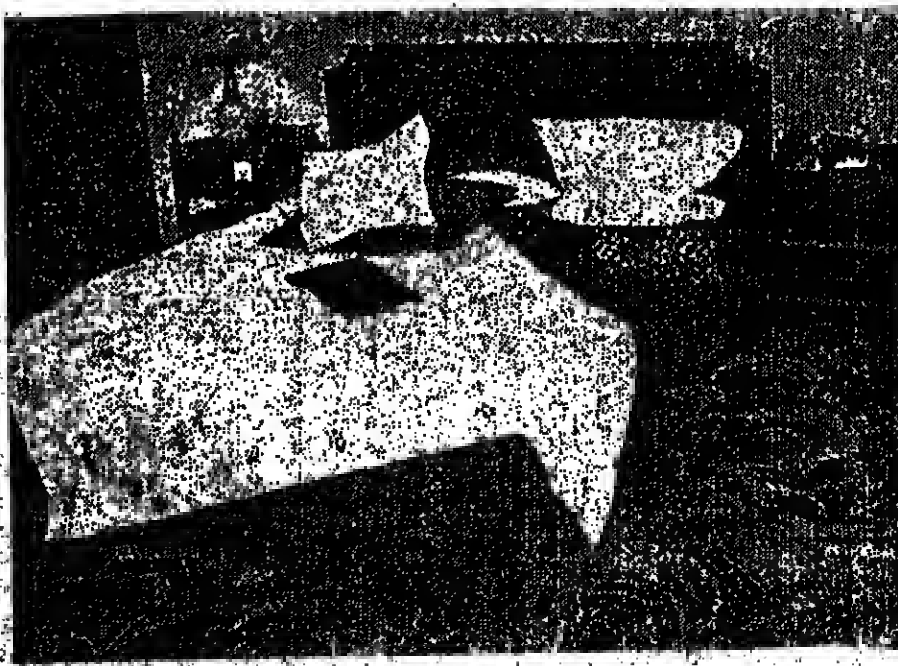
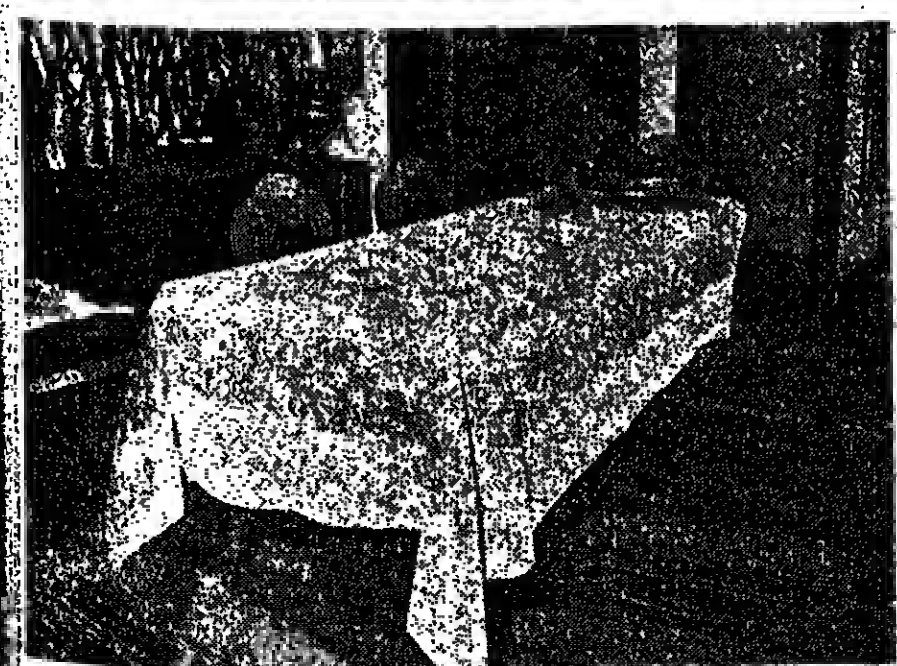
Ramona Ardelean is a seventh grader with the talent of a professional. In 1971, she was already a celebrity. The recent International contest of car modelling brought her the first place in the 14-15 age category. The key to success in this event which demands full attention and, naturally, great skill, is every-day practice. Her success was only a fourth grader, Ramona could be seen at the racing track of the Ploiesti and Honeida Falcones. In Arad, thousands of cars, thousands of turnings but, she has thousands of collisions. But this is how she has grown and fast in making moves and finally how she has come to drive a model without fault. Hence her fame! We are sure that the upcoming nation-wide contest will confirm her shape.



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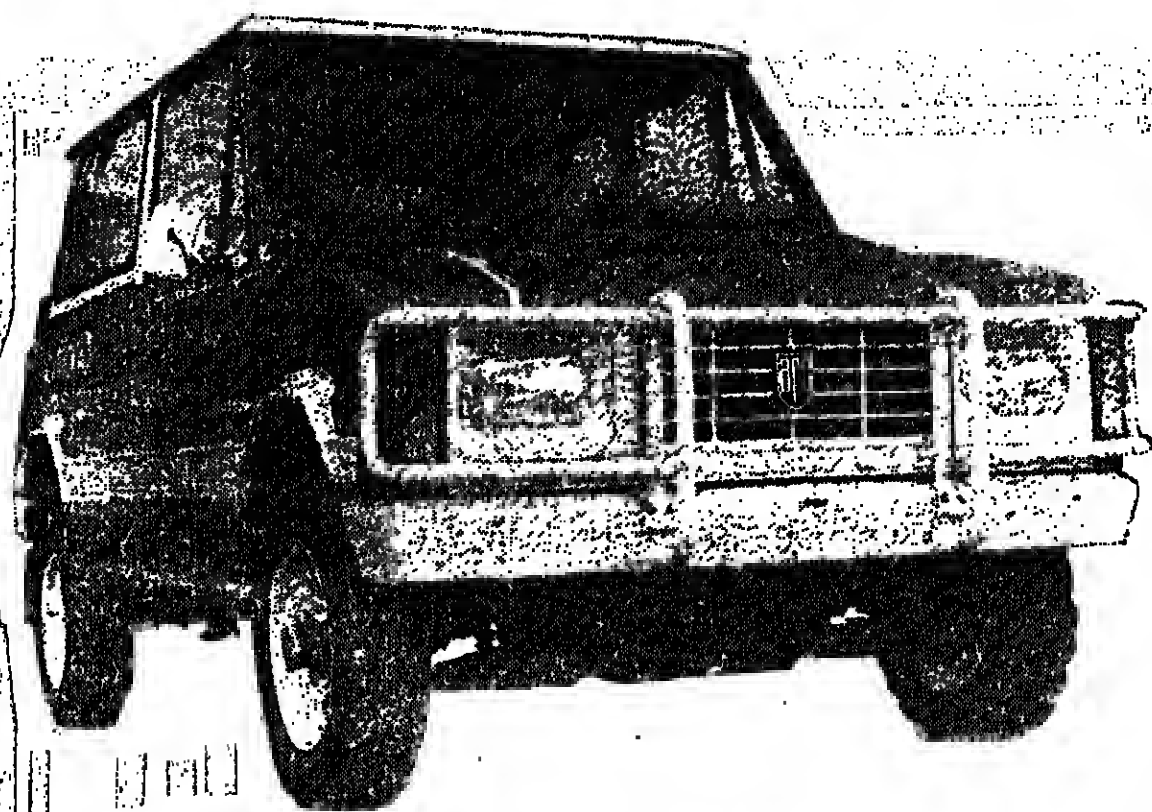
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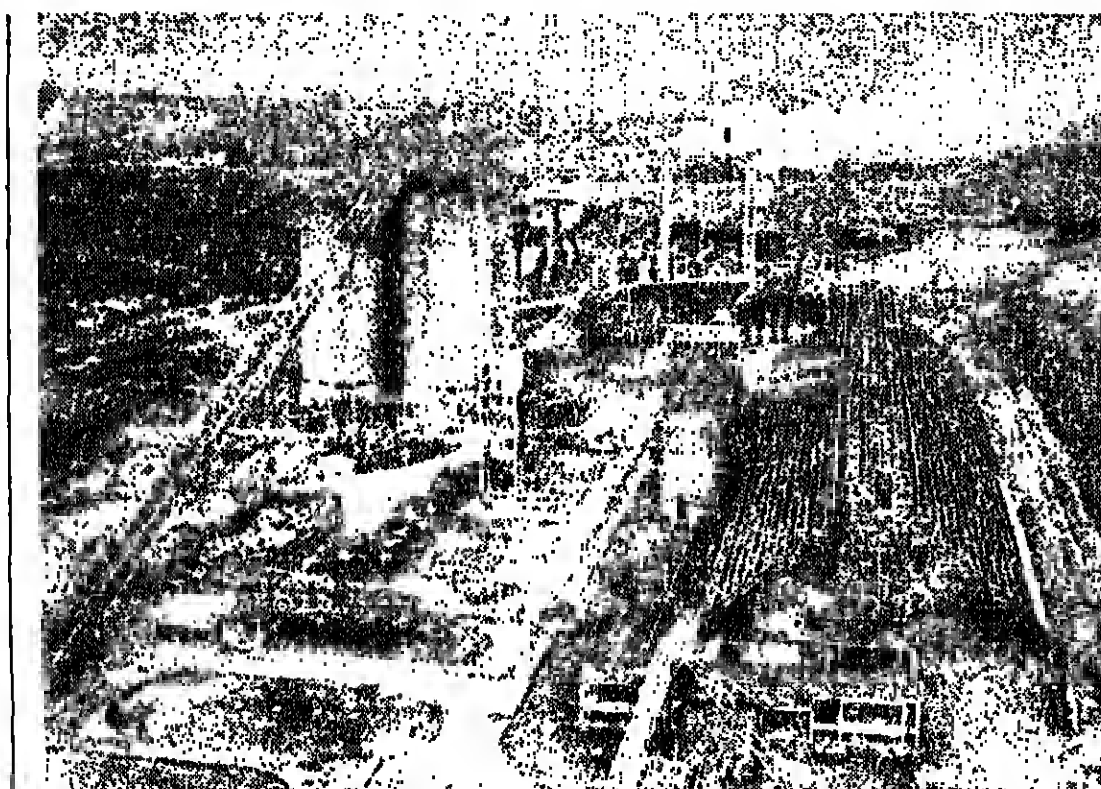
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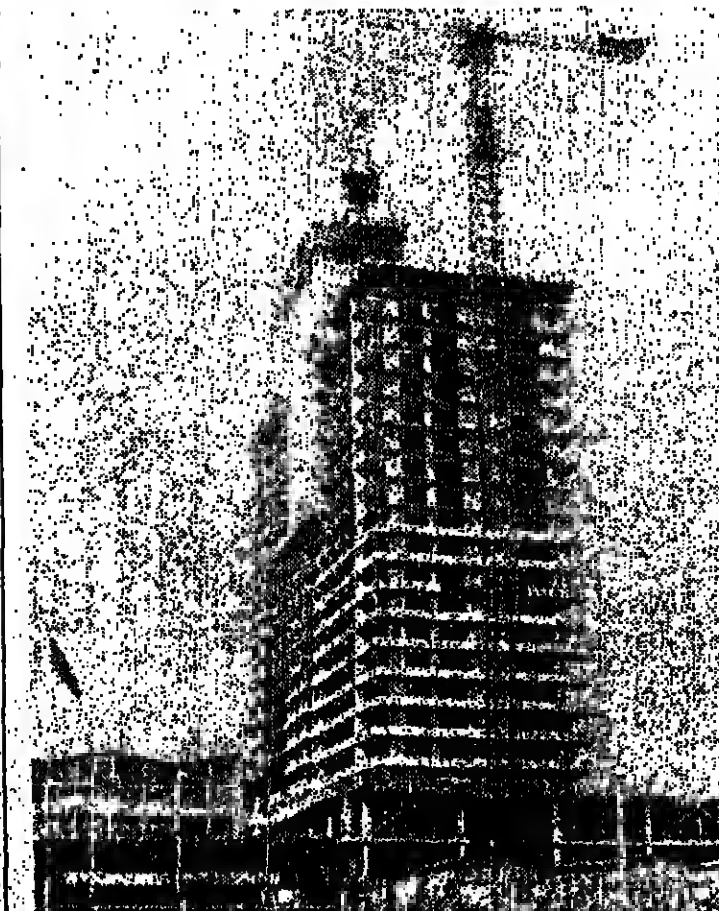
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